



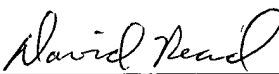
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

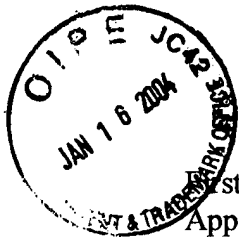
First Named Inventor : Charles L. Gray, Jr.  
Application Number : 10/666,678  
Filing Date : September 19, 2003  
Invention Title : Low Emission Diesel Combustion System with Low  
Charge-Air Oxygen Concentration Levels and High Fuel  
Injection Pressures  
  
Examiner Name :  
Art Unit : 3748  
Attorney Docket : 679-03

**PETITION TO CORRECT INVENTORSHIP**

Pursuant to 37 C.F.R. §1.48(a), applicant submits this petition to correct the inventorship in the above-referenced application by adding **Karl H. Hellman** as a co-inventor on the application. The inventive entity set forth in the executed \$1.63 Oath or Declaration is in error, omitting Karl H. Hellman as an inventor without any deceptive intention on the part of Mr. Hellman or the other inventors.

In support of this Petition, applicant submits the attached statement from Karl H. Hellman and an executed Oath or Declaration, as required by 37 C.F.R. §1.48(a).

  
David H. Read, Reg. No. 47,888  
U.S. Environmental Protection Agency  
National Vehicle and Fuel Emissions Laboratory  
2565 Plymouth Road  
Ann Arbor, MI 48105  
Telephone: (734) 214-4367  
Facsimile: (734) 214-4573  
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor : Charles L. Gray, Jr  
Application Number : 10/666,678  
Filing Date : September 19, 2003  
Invention Title : Low Emission Diesel Combustion System with Low  
Charge-Air Oxygen Concentration Levels and High Fuel  
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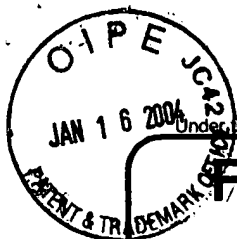
Examiner Name :  
Art Unit : 3748  
Attorney Docket : 679-03

**STATEMENT OF OMITTED INVENTOR KARL H. HELLMAN**  
**IN SUPPORT OF PETITION TO CORRECT INVENTORSHIP**

Pursuant to 37 C.F.R. §1.48(a)(2), I, **Karl H. Hellman**, do hereby declare that I am a co-inventor of the above-referenced patent application, that I was erroneously omitted as an inventor in the executed Oath or Declaration for the above-referenced patent application, and that such error in inventorship occurred without any deceptive intention on my part.

I declare the foregoing under penalty of perjury under the laws of the United States of America. This the 18<sup>th</sup> day of December, 2003.

Karl H. Hellman  
Karl H. Hellman



\$

PTO/SB/17 (10-03)

Approved for use through 07/31/2006. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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# FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT

(\$)

## Complete if Known

Application Number	10/666,678
Filing Date	Sep. 19, 2003
First Named Inventor	Gray, Charles L.
Examiner Name	
Art Unit	3748
Attorney Docket No.	679-03

## METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☒ Deposit Account:

Deposit  
Account  
Number  
Deposit  
Account  
Name

051128

U.S. Environmental Protection Agency

The Director is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments

☒ Charge any additional fee(s) or any underpayment of fee(s)

☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

## FEE CALCULATION

### 1. BASIC FILING FEE

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	770	2001	385	Utility filing fee	
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	
SUBTOTAL (1)					(\$)

### 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

		Extra Claims		Fee from below		Fee Paid
Total Claims	<input type="text"/>	-20** =	<input type="text"/>	X	<input type="text"/>	
Independent Claims	<input type="text"/>	-3** =	<input type="text"/>	X	<input type="text"/>	<input type="text"/>
Multiple Dependent					<input type="text"/>	<input type="text"/>

Large Entity		Small Entity		Fee Description
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
1202	18	2202	9	Claims in excess of 20
1201	86	2201	43	Independent claims in excess of 3
1203	290	2203	145	Multiple dependent claim, if not paid
1204	86	2204	43	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2)

(\$)

\*\*or number previously paid, if greater; For Reissues, see above

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for <i>ex parte</i> reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	
1403	290	2403	145	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	130
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	770	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify)

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$)

130

## SUBMITTED BY

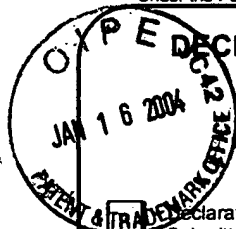
Name (Print/Type)	David H. Read	Registration No. (Attorney/Agent)	47,888	Telephone	(734) 214-4367
Signature	David Read	Date	Jan. 9, 2004		

**WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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# DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)

☐ Declaration  
Submitted  
With Initial  
Filing

OR

☒ Declaration  
Submitted after Initial  
Filing (surcharge  
(37 CFR 1.16 (e))  
required)

Attorney Docket Number	EPA 679-03
First Named Inventor	Charles L. Gray, Jr.
COMPLETE IF KNOWN	
Application Number	10/666.678
Filing Date	September 19, 2003
Art Unit	3748
Examiner Name	

## I hereby declare that:

Each inventor's residence, mailing address, and citizenship are as stated below next to their name.

I believe the inventor(s) named below to be the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

Low Emission Diesel Combustion System with Low Charge-Air Oxygen Concentration Levels  
and High Fuel Injection Pressures

(Title of the Invention)

the specification of which

☐ is attached hereto

OR

☒ was filed on (MM/DD/YYYY) 09/19/2003 as United States Application Number or PCT International

Application Number 10/666,678 and was amended on (MM/DD/YYYY) (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				Yes	No
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

[Page 1 of 2]

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 21 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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**DECLARATION — Utility or Design Patent Application**Direct all correspondence to: ☐ Customer Number:  OR ☒ Correspondence address below**Name**

David H. Read

**Address**

National Vehicle and Fuel Emissions Laboratory, 2565 Plymouth Road

**City**

Ann Arbor

**State**

MI

**ZIP**

48105

**Country**

USA

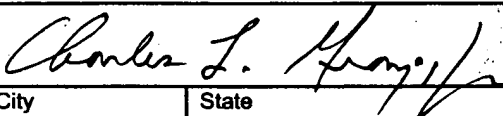
**Telephone**

(734) 214-4367

**Fax**

(734) 214-4573

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

**NAME OF SOLE OR FIRST INVENTOR:**☐ A petition has been filed for this unsigned inventor**Given Name**(first and middle (if any))  
Charles L.**Family Name**or Surname  
Gray, Jr.**Inventor's  
Signature****Date****Residence: City**

Pinckney

**State**

MI

**Country**

USA

**Citizenship**

USA

**Mailing Address**

4323 Cordley lake Road

**City**

Pinckney

**State**

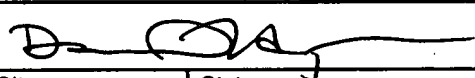
MI

**ZIP**

48169

**Country**

USA

**NAME OF SECOND INVENTOR:**☐ A petition has been filed for this unsigned inventor**Given Name**(first and middle (if any))  
David James**Family Name**or Surname  
Haugen**Inventor's  
Signature****Date**

09 JAN 03

**Residence: City**

Ann Arbor

**State**

MI

**Country**

USA

**Citizenship**

USA

**Mailing Address**

5855 East Horizons Drive

**City**

Ann Arbor

**State**

MI

**ZIP**

48108

**Country**

USA



Additional inventors or a legal representative are being named on the \_\_\_\_\_ supplemental sheet(s) PTO/SB/02A or 02LR attached hereto.

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**DECLARATION****ADDITIONAL INVENTOR(S)**

Supplemental Sheet

Page 3 of 3

<b>Name of Additional Joint Inventor, if any:</b>		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle (if any))		Family Name or Surname	
Karl H.		Hellman	
Inventor's Signature <i>Karl H. Hellman</i>		Date <i>12/18/03</i>	
Ann Arbor Residence: City	MI State	USA Country	USA Citizenship
2690 Overridge Mailing Address			
Mailing Address			
Ann Arbor City	MI State	48104 Zip	USA Country
<b>Name of Additional Joint Inventor, if any:</b>		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle (if any))		Family Name or Surname	
Inventor's Signature			
Residence: City	State	Country	Citizenship
Mailing Address			
Mailing Address			
City	State	Zip	Country
<b>Name of Additional Joint Inventor, if any:</b>		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle (if any))		Family Name or Surname	
Inventor's Signature		Date	
Residence: City	State	Country	Citizenship
Mailing Address			
Mailing Address			
City	State	Zip	Country

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